ABSTRACT OF THE DISCLOSURE

A method for routing packets in a multipath network of nodes balances the loading of system resources while guaranteeing a FIFO network (i.e., First In First Out). Acyclic directed graphs based on local network information are used at each node with routing bias tables that allow for local preferences. A randomizing function may be used throughout the network to allow uniform utilization of system resources. A normalizing function may be used throughout the network to reduce bit operations in routing packets.